

RECEIVED  
CENTRAL FAX CENTER

FEB 28 2008

**IN THE CLAIMS:**

1. (Currently amended) A spinal plating system, comprising:  
an elongate plate including a length extending along a longitudinal axis adapted to span a space between adjacent vertebrae, said plate including a first connection portion attachable to a first one of the adjacent vertebrae and a second connection portion attachable to a second one of the adjacent vertebrae, and an intermediate portion extending between said first and second connection portions, said intermediate portion including a visualization opening extending therethrough for visualizing the space when said plate is attached to the adjacent vertebrae, said intermediate portion including a first member along one side of said visualization opening and a second member along the opposite side of said visualization opening, said first and second members each including a concavely curved outer side surface defining an outer most one of opposite sides of said plate and a concavely curved inner side surface opposite said respective outer side surface, said inner side surfaces defining respective ones of opposite sides of said visualization opening that extend along said longitudinal axis, wherein said first and second members each include a maximum width transversely to said longitudinal axis from said inner side surface to said outer side surface thereof that is uniform along a length of said visualization opening, said visualization opening including a minimum width transversely to said longitudinal axis between said opposite sides thereof, said minimum width of said visualization opening being greater than said maximum widths of said first and second members combined, said visualization opening including at least one convexly curved side wall extending along the longitudinal axis and opposite end walls on opposite ends of said visualization opening extending across the longitudinal axis, each of said end walls including a concave shape extending across the longitudinal axis.

Claims 2-3 (Cancelled)

4. (Original) The plating system of claim 1, wherein said visualization opening includes an hourglass shape.

Amendment with RCE  
Application Serial No. 10/603,471  
Atty Docket No. MSDI-259/PC757.00  
Page 2 of 21

## Claims 5-10 (Cancelled)

11. (Currently amended) The system of claim 1, claim 5, wherein said first and second members are integrally formed with said first and second connection portions.

12. (Currently amended) The system of claim 1, wherein said visualization opening includes end walls at opposite ends of said visualization opening, said end walls extending transversely to said longitudinal axis between said first and second members.

~~— a convexly curved side wall opposite said at least one convexly curved side wall; and~~  
~~— said end walls extend between said side walls.~~

13. (Currently amended) The system of claim 12, wherein said end walls upper end wall and said lower end wall are each concavely curved between said opposite sides of said visualization opening, convexly curved side walls.

14. (Original) The system of claim 1, wherein said visualization opening is centered on said longitudinal axis of said plate.

15. (Original) The system of claim 1, further comprising a fusion member positionable in the space between adjacent vertebrae, said fusion member being visible through said visualization opening when said plate is attached to the adjacent vertebrae.

16. (Original) The system of claim 1, further comprising a holding instrument engageable to said plate, said holding instrument operable to apply a clamping force between an outer wall surface of said plate and a wall of said visualization opening adjacent said outer wall surface.

17. (Original) The system of claim 16, wherein said holding instrument includes a holding system including first and second holding members to apply said clamping force to said plate.

18. (Original) The system of claim 1, wherein each of said connection portions includes a pair of openings each for receiving a bone anchor therethrough to attach said connection portion to the respective adjacent vertebrae.

19. (Original) The system of claim 18, wherein each of said connection portions includes a retaining device engageable to said plate to prevent said bone anchors in said pair of openings from backing out of said plate.

20. (Currently amended) A spinal plating system, comprising:  
an elongate plate extending along a longitudinal axis and including a length along the longitudinal axis adapted to span a space between adjacent vertebrae, said plate including a first connection portion attachable to a first one of the adjacent vertebrae and a second connection portion attachable to a second one of the adjacent vertebrae; and an intermediate portion extending between said first and second connection portions, wherein said first and second connection portions have substantially the same width across said longitudinal axis and each includes at least two holes on opposite sides of the longitudinal axis for receiving bone engaging fasteners, said intermediate portion including a visualization opening extending therethrough for visualizing the space when said plate is attached to the adjacent vertebrae, wherein said intermediate portion includes a first member along one side of said visualization opening and a second member along the opposite side of said visualization opening, said first and second members each including an outer side surface defining an outer most side of said plate and an inner side surface opposite said outer side surface, said inner side surfaces defining respective opposite sides of said visualization opening that extend along said longitudinal axis, wherein said first and second members each include a maximum first-width transversely to said longitudinal axis between said inner side and said an outer side surface thereof, of said plate and an inner side wall of said visualization opening, said visualization opening including a minimum second-width transversely to said longitudinal axis between said opposite sides thereof, inner side walls of said first and second members, said minimum second-width of said visualization opening being

greater than the combined said maximum widths first width of said first and second members combined.

21. (Currently amended) The system of claim 20, wherein at least one of said opposite sides ~~inner side walls~~ of said visualization opening is convexly curved along the longitudinal axis.

22. (Original) The system of claim 21, wherein said outer side surfaces of said first and second members are concavely curved along the longitudinal axis adjacent said visualization opening.

23. (Currently amended) The system of claim 20, wherein said minimum second width is in the range from 100 percent to 125 percent of the combined maximum widths first width.

24. (Original) The system of claim 20, wherein said visualization opening includes a length along said longitudinal axis of said plate, said visualization opening including a length-to-width ratio ranging from 1.0 to 2.5.

25. (Original) The system of claim 20, wherein said visualization opening includes a length along said longitudinal axis of said plate, said visualization opening including a length-to-width ratio ranging from 1.0 to 1.5.

26. (Original) The system of claim 20, wherein said visualization opening includes a length along said longitudinal axis of said plate, said visualization opening including a length-to-width ratio ranging from 1.5 to 2.25.

27. (Original) The system of claim 20, wherein said visualization opening includes a length along said longitudinal axis of said plate, said visualization opening including a length-to-width ratio ranging from 1.0 to 2.0.

28. (Currently amended) A system for stabilizing a portion of the spinal column, comprising:

a plate including a length extending along a longitudinal axis between a first connection portion for attachment to a first vertebra and a second connection portion for attachment to a second vertebra, said plate further including a visualization opening extending therethrough for visualizing a space between the first and second vertebrae, said plate further including a first outer end wall extending transversely to said longitudinal axis along said first connection portion and a second end wall extending transversely to said longitudinal axis in said visualization opening and adjacent to said first connection portion; and comprising at least a first end wall and a second end wall each extending transversely to said longitudinal axis; and

a holding instrument including a remotely actuatable holding system engaged to said adapted to hold the plate with a clamping force between said first and second end walls, wherein said holding system includes a first holding member and a second holding member engaged to respective ones of said first and second end walls to clamp said plate therebetween, wherein said first and second holding members move toward and away from one another in a direction that follows said longitudinal axis of said plate and further comprising a pair of guide members on said holding instrument positioned on opposite sides of said longitudinal axis when said holding system is engaged to said plate. first end wall forms an outer end surface of said plate and said second end wall is an end wall of a visualization opening extending through said plate.

29. (Previously presented) The system of claim 28, wherein said second end wall is concavely curved toward said first end wall across said longitudinal axis.

30. (Previously presented) The system of claim 29, wherein said visualization opening includes at least one convexly surface side wall extending along said longitudinal axis of said plate.

31. (Original) The system of claim 28, wherein said holding system is adapted to hold said plate along said longitudinal axis of said plate.

Amendment with RCE  
Application Serial No. 10/603,471  
Atty Docket No. MSDI-259/PC757.00  
Page 6 of 21

32. (Currently amended) The system of claim 28, wherein said holding instrument includes a proximal handle system and a connecting system operably connecting said holding system to said handle system, wherein said connecting system includes a stationary member and a linkage movable relative to said stationary member with said handle system to move said first holding member relative to said second holding member to engage said plate therebetween, said pair of guide members being mounted to said stationary member proximally of said holding system.

33. (Currently amended) The system of claim 28, wherein said first end wall is concavely curved and said second end wall is concavely curved, ~~said holding system comprising a said first~~ holding member including a convexly curved plate contacting surface adapted to conform to the concavely curved first end wall and ~~a said second holding member including a convexly curved~~ plate contacting surface adapted to conform to the concavely curved second end wall.

34. (Currently amended) The system of claim 28, wherein said second holding member is fixed and said holding system includes a stationary second holding member and a first holding member is pivotally attached to said second holding member and movable relative to said second holding member and said pair of guide members thereto between a clamping position and a release position while said second holding member and said pair of guide members are stationary.

35. (Original) The system of claim 34, wherein said first holding member includes a proximal portion including a first end pivotally attached to said second holding member, said proximal portion extending transversely to said second holding member, said first holding member further including an intermediate portion extending from a second end of said proximal portion opposite said first end, said intermediate portion extending generally in the direction of said second holding member and forming a space with said second holding member to facilitate viewing of a portion of said plate clamped between said first and second holding members.

Amendment with RCE  
Application Serial No. 10/603,471  
Atty Docket No. MSDI-259/PC757.00  
Page 7 of 21

36. (Currently amended) A spinal plating system, comprising:

a plate having a length extending along a longitudinal axis from a first connection portion for connection to a first vertebra to a second connection portion for connection to a second vertebra, said plate having at least one bone engaging fastener hole through said first connection portion offset to one side of said longitudinal axis;

a holding instrument comprising:

an actuating system including a movable linkage member and a stationary member, wherein said linkage member moves relative to said second member upon actuation of said actuating system;

a holding system operably coupled to said actuating system, said holding system including first and second holding members coupled to respective ones of said linkage and said stationary member, wherein said first member is movable along said longitudinal axis with said actuating system between a release position and a clamping position with said second member to selectively engage and release said plate therebetween along said longitudinal axis thereof; and

a guide mechanism along said actuating system including at least one guide member offset from said longitudinal axis and mounted to said stationary member proximally of said holding system with said guide member spaced proximally from said plate when said holding system is engaged to said plate along said longitudinal axis and with said at least one guide member positioned relative to said plate to guide placement of a bone engaging fastener through said at least one hole.

37. (Original) The system of claim 36, wherein:

said plate includes a pair of bone engaging fastener holes positioned on opposite sides of said longitudinal axis; and

said guide mechanism includes a pair of guide members alignable with respective ones of said first and second bone engaging fastener holes, said first and second holding members being positioned between said pair of guide members.

38. (Previously presented) The system of claim 36, wherein said holding instrument further comprises an alignment mechanism adjacent said holding system and distal of said guide mechanism, said alignment mechanism including at least one alignment member extending laterally from said holding system along said at least one bone engaging fastener hole of said plate.

Claims 39-58 (Cancelled)

59. (Currently amended) A spinal plating system, comprising:

an elongate plate including a length extending along a longitudinal axis adapted to span a space between adjacent vertebrae, said plate including a first connection portion attachable to a first one of the adjacent vertebrae and a second connection portion attachable to a second one of the adjacent vertebrae, said first and second connection portions having substantially the same width across said longitudinal axis and an intermediate portion extending between said first and second connection portions, wherein said intermediate portion is comprised of a translucent material for visualizing the space when said plate is attached to the adjacent vertebrae, said intermediate portion further comprising a visualization opening extending therethrough for visualizing the space when said plate is attached to the adjacent vertebrae, a first member along one side of said visualization opening and a second member along an opposite side of said visualization opening, said first and second members each including an outer side surface defining an outer most side of said plate and an inner side surface opposite said outer side surface, said inner side surfaces defining respective opposite sides of said visualization opening that extend along said longitudinal axis, wherein said first and second members each include a maximum width transversely to said longitudinal axis between said inner side and said outer side surface thereof, said visualization opening including a minimum width transversely to said longitudinal axis between said opposite sides thereof, said minimum width of said visualization opening being greater than said maximum widths of said first and second members combined.



60. (Currently amended) The system of claim 59, wherein said first and second members each include a uniform width along said visualization opening between said outer side surface and said inner side surface thereof, ~~intermediate portion further includes at least one visualization opening for visualizing the space.~~

61. (Currently amended) The system of claim 59, ~~claim 60~~, wherein said visualization opening includes at least one convexly curved side wall extending along the longitudinal axis and is further defined by upper and lower end walls having concave curvatures across said longitudinal axis.

62. (Original) The system of claim 59, wherein said entire plate is comprised of translucent material.

Claims 63-80 (Cancelled)

81. (Currently amended) A spinal plating system, comprising:  
an elongate plate including a length extending along a longitudinal axis adapted to span a space between adjacent vertebrae, said plate including a first connection portion attachable to a first one of the adjacent vertebrae and a second connection portion attachable to a second one of the adjacent vertebrae, and an intermediate portion extending between said first and second connection portions, said intermediate portion including a visualization opening extending therethrough for visualizing the space when said plate is attached to the adjacent vertebrae, ~~said visualization opening including at least one convexly curved side wall extending along the longitudinal axis~~, wherein each of said connection portions includes a pair of openings each for receiving a bone anchor therethrough to attach said connection portion to the respective adjacent vertebrae and each of said connection portions includes a retaining device engageable to said plate to prevent said bone anchors in said pair of openings from backing out of said plate, wherein said intermediate portion includes a first member along one side of said visualization opening and a second member along an opposite side of said visualization opening, said first and

second members each include a concavely curved outer surface extending along opposite outer edges of said plate between said first and second connection portions, said first and second members further including a convexly curved inner surface opposite said outer surface thereof, said inner surfaces extending along and defining respective sides of said visualization opening, wherein said inner and outer surfaces of said first member and said inner and outer surfaces of said second member each define a width along said longitudinal axis that is uniform along a length of said visualization opening.

82. (Previously presented) The system of claim 81, wherein said visualization opening includes opposite end walls extending across the longitudinal axis and each of said end walls define said visualization opening with a concave curvature at the longitudinal axis.

Claims 83-86 (Cancelled)

87. (Currently amended) The system of claim 81, claim 86, wherein said visualization opening includes a minimum second-width between said convexly curved inner surfaces of said first and second members, said minimum width being greater than said uniform widths of said first and second members combined side walls, said second width being greater than said first width.

Claim 88 (Cancelled)

89. (Currently amended) A spinal plating system, comprising:

a plate extending along a longitudinal axis, said plate having at least one bone engaging fastener hole offset to one side of said longitudinal axis, said plate including a first connection portion attachable to a first one of the adjacent vertebrae and a second connection portion attachable to a second one of the adjacent vertebrae and an intermediate portion extending between said first and second connection portions, said intermediate portion defining a visualization window with an upper end adjacent said first connection portion and lower end

adjacent said second connection portion, said upper and lower ends having substantially the same width across said longitudinal axis;

a holding instrument comprising:

an actuating system including a movable linkage member and a stationary member, wherein said linkage member moves relative to said stationary member upon actuation of said actuating system;

a holding system operably coupled to said actuating system, said holding system including first and second holding members movable with said actuating system between a release position and a clamping position to selectively engage and release said plate therebetween along said longitudinal axis thereof; and

a guide mechanism along said actuating system including at least one guide member mounted to said stationary member proximally to said holding system and in offset relation to said longitudinal axis so that, wherein with said at least one guide member is positioned relative to said plate to guide placement of a bone engaging fastener through said at least one hole when said first and second holding members are engaged to said plate along said longitudinal axis.

90. (Previously presented) The system of claim 89, wherein:

each of said first and second connection portions of said plate includes a pair of bone engaging fastener holes positioned on opposite sides of said longitudinal axis; and

said guide mechanism includes a pair of guide members alignable with respective ones of said first and second bone engaging fastener holes, said first and second holding members being positioned between said pair of guide members.

91. (Previously presented) The system of claim 89, wherein said holding instrument further comprises an alignment mechanism adjacent said holding system and distal of said guide mechanism, said alignment mechanism including at least one alignment member extending laterally from said holding system along said at least one bone engaging fastener hole of said plate.

92. (Currently amended) The system of claim 20, claim 1, wherein said visualization opening includes opposite end walls extending transversely to said longitudinal axis between said opposite sides of said visualization opening, the concave shape of each end wall extends between said at least one convexly curved side wall and a second side wall opposite said at least one convexly curved sidewall.

93. (Currently amended) The system of claim 92, wherein said opposite end walls are each concavely curved between said opposite sides of second side wall is convexly curved along said visualization opening.

Amendment with RCE  
Application Serial No. 10/603,471  
Atty Docket No. MSDI-259/PC757.00  
Page 13 of 21